



UNITED STATES DEPARTMENT OF COMMERCE
National Institute of Standards and Technology
Gaithersburg, Maryland 20899-

June 26, 2007

Mr. Chris Gekas
California Energy Commission
1516 Ninth Street, MS 25
Sacramento, CA 95814-5512

Dear Mr. Gekas,

A Measure Information Template titled "Fault Detection and Diagnostics for Air Handling Units and VAV Boxes" was recently submitted to the California Title 24 2008 revision process. I would like to present the following 2008 Building Energy Efficiency Standards comments. Comments 1, 2, and 3 are suggested to correct some minor factual errors. Comments 4 and 5 are requested in order to avoid the improper release of confidential and proprietary information. Please contact me if you want to discuss these comments.

1. On page 2, under Overview -> Description, change the first sentence from "Maintenance problems with built-up air handling units (AHUs) and variable air volume (VAV) boxes are often not detected by all energy management systems (EMS) because required data and analytical tools are not universally available" to "Maintenance problems with built-up air handling units (AHUs) and variable air volume (VAV) boxes are often not detected by current energy management systems (EMS) because the required analytical tools are not currently available." This change is suggested in order to avoid the false impression that fault detection and diagnostic (FDD) capabilities are currently available in some EMS.
2. On page 2, under Overview -> Description, change the next to last sentence from "The software provides feedback through the EMS to the building operator when trend data indicates equipment operating conditions outside expected parameters" to "The software provides feedback through the EMS to the building operator when it detects equipment operating conditions outside expected parameters." This change is suggested because the software uses live data, not trend data, as input.
3. On page 2, under Overview -> Description, change the last sentence from "A list of potential fault diagnosis is provided to the building operator" to "A list of potential fault diagnoses are provided to the building operator." This change is suggested to correct grammatical errors.
4. On page 5, under Measure Availability and Cost, delete the second sentence, which begins "Under these agreements ..." This change is requested to avoid releasing confidential/proprietary information regarding the Cooperative Research and Development Agreements.



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5. On page 5, under Measure Availability and Cost, change the third sentence, which begins "At this time ..." to "At this time, the algorithms are in commercial use as noted in the table in the Bibliography and Other Research section." This change is requested to avoid releasing confidential/proprietary information regarding the Cooperative Research and Development Agreements.

Thank you for the opportunity to review the FDD template. Again, please contact me if you want to discuss these comments.

Sincerely,

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